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# Terms of Reference

# CONSULTING SERVICES for 100 MW [Region] Concentrated Solar Power Project in [Country]

## BACKGROUND

*<Rationale for the project, project history and list of relevant studies, need for consultant in the project and issues to be resolved, source of financing.>*

## PURPOSE OF REQUIRED CONSULTING SERVICES

In the context of the [Region] CSP Investment Plan, the Government requested [Donor] support for the implementation of the 100 MW [Region] CSP. This project will be implemented as a public sector project and will be fully owned and operated by the Authority in charge of New and Renewable Energy. The Authority in charge of New and Renewable Energy will enter into a contract with the [Country] Electricity Transmission Company to sell the power from this plant.

In order to further support the development activities of the [Region] CSP project, the Authority in charge of New and Renewable Energy seeks the services of a qualified consultant to undertake, in close collaboration with Authority in charge of New and Renewable Energy, the whole process of procuring the main EPC contractor to implement the project as well as provide capacity building to Authority in charge of New and Renewable Energy in the area of solar energy applications.

## SCOPE OF THE SERVICES

### General

The required consultancy services include two main components: A) procurement of contractor to construct the [Region] CSP plant, and B) capacity building for Authority in charge of New and Renewable Energy.

### Component A: Procurement of Contractor

This component will be executed in three main stages: Bidding, Bid Evaluation and Contracting. The procurement process will build on the findings of the feasibility study.

All procurement-related documents and procedures must conform to the requirements of the [Donors], including the use of standard pre-qualification & bidding documents and prior review.

#### Stage I: Bidding

##### Task I-1: Conceptual Design

This task includes the following subtasks:

* Review the findings of the feasibility study with respect to the optimum range of technological and design configurations; confirm or revise their results as appropriate, identify any weaknesses or gaps.
* Technical Configuration and specifications
* Conceptual Design
* Develop Project Time Schedules
* Update the preliminary cost estimate
* Prepare a bidding strategy and design an evaluation approach.

##### Task I-2: Prequalification of Contractors

The Consultant will draft an announcement for pre-qualification of contractors which will be in form of a newspaper advertisement. The Consultant will also send this advertisement directly to potential bidders. Finally, they shall prepare a prequalification evaluation report based on the responses received and a shortlist of qualified bidders.

##### Task I-3: Bidding Documents

The Consultant shall prepare complete bidding documents for requesting offers from the shortlisted contractors. The biding documents will include detailed technical specifications of the CSP project, bidding forms, bid evaluation methodology and criteria, and contract documents; in conformity with the requirements and standard documents of the [Donors].

##### Task I-4: Pre-bid phase

The Consultant will participate in the pre-bid meeting, and shall prepare minutes of meeting and answers to the questions raised by the bidders. The Consultant shall also prepare any addendums to the bidding documents as needed.

#### Stage II: Bid Evaluation

The Consultant will work jointly with Authority in charge of New and Renewable Energy staff in [City] to evaluate the submitted proposals according to the criteria stipulated in the bidding documents, prepare the bid evaluation report and rank the offers according to the evaluation criteria.

#### Stage III: Contracting phase

The Consultant will prepare the points to be clarified with the successful bidder, attend the negotiations meetings and prepare the final contract document until contract signature.

### Component B: Capacity Building for Authority in charge of New and Renewable Energy Staff

The main objective of this component is to increase the capacity of Authority in charge of New and Renewable staff in dealing with solar energy projects, especially the concentrated solar power technology. The capacity building should include components targeting solar resource measurement and assessment, technical and economic/financial feasibility of utility-scale solar power projects, operation and maintenance of solar power plants. The Consultant is to propose the most effective modalities for delivering the required capacity building, including on-the-job training, conducting training sessions and seminars, provision of reference material, case studies and computer models, etc. A minimum number of five technical staff from Authority in charge of New and Renewable is expected to fully benefit from this capacity building component.

As part of the solar resources measurement/assessment capacity building, the Consultant will be required to assist Authority in charge of New and Renewable in procuring a solar measurement station for the [Region] project. The station will include all the equipment necessary for assessing the solar resource for applications such as the [Region] project, including pyreheliometer; pyranometer; automatic solar tracker; pressure, temperature, humidity and wind measurements; data logger and communication modem. The station will be procured and installed during the first three months of the consultancy services, whereas the Consultant will be assisting Authority in charge of New and Renewable in manipulating, analyzing and interpreting the measured data for a period of four months after installation.

The capacity building component will be delivered at Authority in charge of New and Renewable premises in [City]. Authority in charge of New and Renewable will provide office space for organized training sessions, seminars, etc. All travel-related costs should be covered by the Consultant. [Language] shall be the main language used for all the activities, e.g. training sessions, printed material, etc.

## TIME SCHEDULE AND DELIVERABLES

A tentative time schedule for implementation of the required consultancy services, including list of the main deliverables/milestones, is provided below. The consultant will submit all deliverables and reports to Authority in charge of New and Renewable in five hard copies and one soft copy. The reports will be subject to approval by Authority in charge of New and Renewable and the financing institutions.

## ORGANIZATION OF THE WORK

The consultant team shall be specifically composed to meet the needs of the project. The work will be in close coordination with Authority in charge of New and Renewable staff. The consultants should thus specify how to organize the work to ensure the minimum elapsed time and maximum efficiency and transfer of experience in the development of the three stages.

The work should be arranged as follows:

1. Authority in charge of New and Renewable will participate in all activities of this project in coordination with the consultant.
2. Pertinent data will be supplied by Authority in charge of New and Renewable who will also provide such assistance as may be reasonably required for carrying out the services.
3. Report preparation and reproduction including word processing, drawing and editing shall be carried out at the offices of the Consultant at his own cost.
4. The consultant will be provided with an air-conditioned office, with enough space for four persons, and access to local calls.
5. The consultant has to provide Authority in charge of New and Renewable with working copies of any computer models and software used to conduct the services. The consultant will also provide “User operation Manuals” for those computer models and provide Authority in charge of New and Renewable staff with sufficient training on those models.